The Bonn Geodetic VLBI Operation Center

A. Nothnagel, D. Fischer, A. Müskens

Abstract

In 2005 the GIUB Operation Center has continued to carry out similar tasks of organizing and scheduling various observing series as in 2004.

1. Center Activities

The GIUB VLBI Operation Center is located at the Geodetic Institute of the University of Bonn, Nussallee 17, D-53115 Bonn, Germany. It has been organizing and scheduling VLBI observing sessions for more than twenty years. The observing series organized and scheduled in 2005 are the same as in 2004.

As of December 31, 2005, Mrs. Dorothee Fischer had to leave us due to German university regulations. She has done a very good job for the IVS in scheduling the INT2 (Wettzell – Tsukuba) sessions for a long time putting a lot of efforts into designing optimized schedules. We wish her success in completing her Ph.D. and any further opportunities which lie ahead.



Figure 1. Building of the Geodetic Institute in a new coat (for comparison see IVS Annual Report 2003)

IVS 2005 Annual Report

• Tsukuba - Wettzell UT1-UTC K4 Intensive Series (INT2)

The Tsukuba - Wettzell Intensive series for monitoring UT1-UTC has been continued and expanded as a joint project of the Bundesamt für Kartographie und Geodäsie (BKG, Germany), the Geographical Survey Institute (GSI, Japan) and the Geodetic Institute of the University of Bonn (GIUB, Germany).

Regular one hour sessions have been observed almost every Saturday and Sunday in 2005. All sessions are now routinely observed as eVLBI (electronic transfer) sessions reducing the time between observations and correlation considerably.

In fall 2005 the routine operation and scheduling of the INT2 sessions was handed over to the VLBI group at BKG Leipzig.

• IVS-T2 series

This series is being observed roughly every second month (6 sessions in 2005) primarily for maintenance and stabilisation of the VLBI terrestrial reference frame as well as for Earth rotation monitoring as a by-product. Each station of the global geodetic VLBI network participates several times per year in the T2 sessions. In 2005 the IVS Observing Program Committee (OPC) decided to enlarge the T2 sessions from 8 or 9 stations to 14 to 16 for a stronger and more robust determination of the TRF. The scheduling of these sessions has to take into account that a sufficient number of observations is planned for each baseline of these global networks.

• Measurement of Vertical Crustal Motion in Europe by VLBI (EUROPE)

Four sessions with Ny-Ålesund, Onsala, Wettzell, Simeiz, Madrid (DSS65), Yebes, Medicina, Matera, Noto, Svetloe, and Effelsberg (participated twice) have been scheduled for precise station coordinate determination and long term stability tests. MPIfR is now operating a Water Vapor Radiometer at Effelsberg on a routine basis.

• Southern Hemisphere and Antarctica Series (OHIG):

Six sessions with the Antarctic stations Syowa (Japanese) and O'Higgins (German) plus Fortaleza, Hobart, Kokee, HartRAO and DSS45 have been organized for maintenance of the VLBI TRF and Earth rotation monitoring. OHIGGINS is also included in the T2 sessions.

2. Staff

Table 1. Personnel at GIUB Operation Center

Dorothee Fischer (until Dec 31, 2005)	++49-228-732623	${ m dorothee.fischer@uni-bonn.de}$
Arno Müskens	++49-228-525264	mueskens@mpifr-bonn.mpg.de
Axel Nothnagel	++49-228-733574	nothnagel@uni-bonn.de